

## BRIEFING NOTE FOR INFORMATION

**DATE:** July 6, 2023

**PREPARED FOR:** Honourable Nathan Cullen, Minister of Water, Land and Resource Stewardship

**ISSUE:** 2023 Spotted Owl Release and Adaptive Management

### KEY POINTS:

- BC and Spuzzum First Nation are partnering to implement a second spotted owl release trial.
- Two male captive born and raised owls will be moved to Spuzzum territory July 10, 2023, with their anticipated release into the wild occurring the week of July 25, 2023.
- Release protocols have been updated to incorporate learnings from the 2022 release trial.

### BACKGROUND:

- In August 2022, the world's first release trial for captive born and raised spotted owls was conducted in partnership with Spuzzum First Nation. Three male owls (sítist <tsist>, sinci <shee-in-gee>, qeck <hut-chk>) were released into protected habitats near Spuzzum, BC.
- Breeding and release programs are long-term investments with high stakes (including high mortality). The goal of the 2022 release trial was to learn, informing protocols and procedures for raising 'releasable' owls and transporting, releasing, and supporting them post-release.
- The 2022 release protocols were experimental but designed based on the best available science and Indigenous knowledge.
- In October 2022, sítist was found injured beside train tracks and has since been fully rehabilitated and is ready for re-release in 2023. The remaining two owls, sinci and qeck, were last detected in December 2022; their monitoring transmitters, identification bands and some scavenged remains were subsequently recovered in May 2023.
- Despite these outcomes, the 2022 release trial was a significant step forward; all three owls reached a milestone of self-reliance in the wild for several months, which is a rare success in the field of conservation biology, let alone on a first attempt.
- BC and Spuzzum First Nation met July 4, 2023, and agreed to continue the spotted owl release partnership for 2023. The meeting also included a review and discussion of learnings from the 2022 release operations and developing updated 2023 release protocols, including adjustments to help improve overwinter survivorship.

### DISCUSSION:

- The 2022 release operation followed two decision frameworks that considered: government mandate; consultation and engagement with rights and title holders and various interest holders; legislative authorizations; breeding program readiness; owl readiness; receiving environment readiness; operational readiness; and information systems and communications.
- Each of these components were systematically reviewed and documented by ministry staff, operational participants, and Spuzzum First Nation to identify learnings and update for 2023.

#### Examples of adaptive management for 2023 include:

1. **First Nations engagement:** At the July 4<sup>th</sup> BC - Spuzzum meeting opportunities for continuous improvement in our partnership were discussed. This included communication,

- capacity funding, scope/limitations of the partnership and long-term interests. As a result, a memorandum of understanding is being co-developed to support a longer-term relationship.
2. **Breeding Program Readiness:** For 2023 the population management protocol at the breeding centre is being adjusted to increase genetic insurance as a result of initiating the release program which has increased mortality risk.
  3. **Owl Readiness:** 2023 release candidates were switched to a live-prey diet earlier to allow more time to practice hunting skills in captivity. Given that the 2022 owls all demonstrated self-sufficiency in wild, including weight gain, hunting competency was not necessarily considered an issue, however, this is one precautionary adjustment to provide further support.
  4. **Receiving Environment Readiness:** For 2023, a new release site within the Anderson Release Area was selected. This location provides improved habitat features and was used by sítist in 2022. This location also offers logistical improvements for security and safety, including avoiding a road closure. There is also opportunity to have multiple aviaries installed year-round, significantly reducing mobilization costs, and optimizing for future scalability.
  5. **Operational Readiness:** The most significant issue for monitoring in 2022 occurred during the overwinter period due to the second set of GPS monitors failing to transmit after December 2022. For 2023 we will be reprogramming the GPS monitors to increase transmission frequency. This will help us detect a failed transmitter sooner and improve our ability to relocate the owls via the back up VHF radio-tag sooner. If we can find the owls sooner after GPS-tag failure, we can assess owl health and intervene if needed or re-GPS tag or retrieve the body (allowing a better opportunity to understand mortality factors). In 2022 this was not possible because, after the GPS tag's last transmission in December 2022, the VHF radio tags were undetectable until spring 2023. The trade-off is decreased battery life and risking not being able to re-tag the birds if they are in an inaccessible area (which is common during winter conditions). Monitoring data & visual health checks prior to the GPS-tag failures did not indicate any risks requiring intervention (e.g., capture, habitat protection, etc.).
  6. **Information Systems & Communications:** Staff are building an adaptive management appendix to track adjustments to the release protocol through time. This will help document issues, considerations and decisions as the program learns and will ensure government is supporting with a transparent record. This will also help share learnings for parallel recovery programs within B.C. and internationally.
- For 2023, all the decision protocol conditions have been met and we are operationally ready to proceed with a second release trial. BC and Spuzzum have agreed to undertake the release in partnership.
  - Two release candidates are available to be moved on July 10<sup>th</sup>, 2023. The releases individuals include: sítist and m-22. For 2024, an additional 4 release candidates will be available.
  - BC has also initiated pre-engagement with 65 First Nations covering the historic range of spotted owl to seek additional partnerships for future releases. 16 proposed release areas are being considered with the Skagit as the 2<sup>nd</sup> proposed release area.

## INDIGENOUS PEOPLES:

- Spotted Owls – known as skelúle? – are Spuzzum ancestors and messengers to the spiritual world.
- They hold profound cultural, medicinal, and spiritual importance to Spuzzum First Nation.
- Spuzzum First Nation is seeking a moratorium on logging within their traditional territory.

## FINANCIAL IMPLICATIONS:

- Operational costs for the breeding and release program are currently funded through base and recoverable funds.
- Annual operating costs have grown from approximately \$250,000 to \$1,000,000 over the last 5-years due to scaled growth following breeding success, the addition of the release component in 2022 and inflation (aviary costs increased from \$8,000 to \$40,000 per cage).
- Once the program has confirmed the viability of reintroducing owls into the wild and is ready to expand the release of owls, a long-term operation budget and funding may be needed.
- Discussions with Treasury Board will likely need to begin in 2024/25 for funding in 2025/26.

## SUMMARY:

- BC and Spuzzum First Nation are continuing to work in partnership to re-establish spotted owls into the wild with a second trail release of two male captive-born spotted owls planned for release July 2023. We expect to learn and do better each time we go through a release, but fully anticipate mortalities will be a continued and unfortunate part of release efforts.

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## REVIEWED BY:

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ADM	DM	July 7, 2023
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